IN THE CLAIMS

Please amend the claims as follows:

1. (presently amended) A method for performing a pattern match search for a data string having a plurality of characters separated by delimiters, said method comprising:

defining a ~~first category~~ subset of characters as delimiters such that all remaining characters are defined as non-delimiters;

constructing a search key by:

generating a full match search increment comprising the binary representation of a data string element, wherein said data string element ~~comprises all~~ includes a plurality of non-delimiters between a pair of ~~said~~ delimiters; and

concatenating a pattern search prefix to said full match search increment to form said search key, wherein said pattern search prefix is a cumulative pattern search result of ~~each~~ all previous full match search increments;

performing a full match search within a lookup table utilizing said search key;

in response to finding a matching ~~pattern~~ within said lookup table, returning to said ~~step of~~ constructing a search key; and

in response to not finding a matching ~~pattern~~ within said lookup table, utilizing ~~the~~ a previous full match search result to process said data string.

2. (presently amended) The method of claim 1, wherein said ~~step of~~ constructing a search key is preceded by pointing to a character within said data string.

3. (presently amended) The method of claim 2, wherein said ~~step of~~ constructing ~~a search key~~ further comprises:

evaluating said character within said data string to determine whether or not said character is a delimiter;

in response to a determination that said character within said data string being a delimiter:

delivering a full match search increment into a search key register, wherein said search increment comprises a binary representation of all non-delimiters between said delimiter and an immediately preceding delimiter; and

concatenating said pattern search prefix to said search increment within said search key element;

in response to a determination that said character within said data string not being a delimiter, appending a binary representation of said character to said search increment; and

incrementing said pointer.

4. (presently amended) The method of claim 1, wherein said method further ~~comprising~~ includes updating said pattern search prefix, in response to finding a matching pattern~~, updating said pattern search prefix~~.

5. (presently amended) The method of claim 1, wherein said ~~step of~~ performing a full match search further comprises:

determining whether or not a full match for said search key exists within said hash table by:

hashing said search key to produce a hash key result;

indexing a hash table utilizing said hash key result to find a matching stored pattern; and

resolving collisions in said hash table utilizing a pattern search control block.

6. (presently amended) The method of claim 1, wherein said data string is a Universal Resource Indicator address, and ~~wherein~~ said data string element is a URI element.

7. (presently amended) The method of claim 6, wherein said delimiters ~~comprise~~ include period characters or slash characters.

8. (presently amended) The method of claim 6, wherein said step of constructing a search key ~~is preceded by the steps of~~ further includes:

scanning an IP data packet to determine a first URI element to by parsed;

initializing a URI pointer to a first character within said first URI element; and

initializing said pattern search prefix to zero.

9. (presently amended) A system for performing a pattern match search for a data string having a plurality of characters separated by delimiters, said system comprising:

means for defining a ~~first category~~ subset of characters as delimiters such that all remaining characters are defined as non-delimiters;

~~processing~~ means for constructing a search key by:

generating a full match search increment comprising the binary representation of a data string element, wherein said data string element ~~comprises all~~ includes a plurality of non-delimiters between a pair of ~~said~~ delimiters; and

concatenating a pattern search prefix to said full match search increment to form said search key, wherein said pattern search prefix is a cumulative pattern search result of ~~each~~ all previous full match search increments;

~~processing~~ means for performing a full match search within a lookup table utilizing said search key;

~~processing~~ means ~~response to finding a matching pattern within said lookup table~~ for returning to said ~~step of~~ constructing a search key, in response to finding a matching pattern within said lookup table; and

~~processing~~ means ~~responsive to not finding a matching pattern~~ for utilizing the previous full match search result to process said data string, in response to not finding a matching pattern within said lookup table.

10. (presently amended) The system of claim 9, wherein said system further ~~comprising~~ includes processing means for pointing to a character within said data string prior to constructing a search key.

11. (presently amended) The system of claim 10, wherein said processing means for constructing a search key further comprises:

~~processing~~ means for evaluating said character to determine whether or not said character is a delimiter;

~~processing~~ means responsive to said character being a delimiter for:

delivering a full match search increment into a search key register, wherein said search increment comprises a binary representation of all non-delimiters between said delimiter and an immediately preceding delimiter; and

concatenating said pattern search prefix to said search increment within said search key element;

~~processing~~ means responsive to said character not being a delimiter for appending a binary representation of said character to said search increment; and

~~processing~~ means for incrementing said pointer.

12. (presently amended) The system of claim 9, wherein said system further ~~comprising processing~~ includes means responsive to finding a matching pattern for updating said pattern search prefix.

13. (presently amended) The system of claim 9, wherein said ~~processing~~ means for performing a full match search further comprises:

~~processing~~ means for determining whether or not a full match for said search key exists within said hash table by:

hashing said search key to produce a hash key result;

indexing a hash table utilizing said hash key result to find a matching stored pattern; and

resolving collisions in said hash table utilizing a pattern search control block.

14. (presently amended) The system of claim 9, wherein said data string is a Universal Resource Indicator address, and ~~wherein~~ said data string element is a URI element.

15. (presently amended) The system of claim 14, wherein said delimiters ~~comprise~~ include period characters or slash characters.

16. (presently amended) The system of claim 14, wherein said ~~processing~~ means for constructing a search key further comprises:

~~processing~~ means for scanning an IP data packet to determine a first URI element to by parsed;

~~processing~~ means for initializing a URI pointer to a first character within said first URI element; and

~~processing~~ means for initializing said pattern search prefix to zero.

17. (presently amended) A computer program product for performing a pattern match search for a data string having a plurality of characters separated by delimiters, said computer program product comprising:

instruction means for defining a ~~first category~~ subset of characters as delimiters such that all remaining characters are defined as non-delimiters;

instruction means for constructing a search key by:

generating a full match search increment comprising the binary representation of a data string element, wherein said data string element ~~comprises all~~ includes a plurality of non-delimiters between a pair of ~~said~~ delimiters; and

concatenating a pattern search prefix to said full match search increment to form said search key, wherein said pattern search prefix is a cumulative pattern search result of ~~each~~ all previous full match search increments;

instruction means for performing a full match search within a lookup table utilizing said search key;

instruction means ~~response to finding a matching pattern within said lookup table~~ for returning to said ~~step of~~ constructing a search key, in response to finding a matching pattern within said lookup table; and

instruction means ~~responsive to not finding a matching pattern~~ for utilizing the previous full match search result to process said data string, in response to not finding a matching pattern within said lookup table.

18. (presently amended) The computer program product of claim 17, wherein said computer program product further ~~comprising~~ includes instruction means for pointing to a character within said data string prior to constructing a search key.

19. (presently amended) The computer program product of claim 18, wherein said instruction means for constructing a search key further ~~comprises~~ includes:

instruction means for evaluating said character to determine whether or not said character is a delimiter;

instruction means responsive to said character being a delimiter for:

delivering a full match search increment into a search key register, wherein said search increment comprises a binary representation of all non-delimiters between said delimiter and an immediately preceding delimiter; and

concatenating said pattern search prefix to said search increment within said search key element;

instruction means responsive to said character not being a delimiter for appending a binary representation of said character to said search increment; and

instruction means for incrementing said pointer.

20. (presently amended) The computer program product of claim 17, wherein said computer program product further ~~comprising~~ includes instruction means responsive to finding a matching pattern for updating said pattern search prefix.

21. (currently amended) The computer program product of claim ~~7~~17, wherein said instruction means for performing a full match search further ~~comprises~~ includes:

instruction means for determining whether or not a full match for said search key exists within said hash table by:

hashing said search key to produce a hash key result;

indexing a hash table utilizing said hash key result to find a matching stored pattern; and

resolving collisions in said hash table utilizing a pattern search control block.

22. (presently amended) The computer program product of claim 17, wherein said data string is a Universal Resource Indicator address, and ~~wherein~~ said data string element is a URI element.

23. (presently amended) The computer program product of claim 22, wherein said delimiters ~~comprise~~ include period characters or slash characters.

24. (presently amended) The computer program product of claim 22, wherein said instruction means for constructing a search key further ~~comprises~~ includes:

instruction means for scanning an IP data packet to determine a first URI element to by parsed;

instruction means for initializing a URI pointer to a first character within said first URI element; and

instruction means for initializing said pattern search prefix to zero.